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- N°. 6. A leaf, of the common fize, after the flower has fallen, and the feed-veffel is ripe. Some of the principal nerves of the leaf are represented.
- N°. 7. The germen, or feed-bud, with the ftyle, and ftigma, of the fize they appear a few days after the falling off of the flower.
- $N^{\circ}$ . 8. One of the leaves of the flower cup.
- Nº. 9. A feed, of its natural fize, when ripe.
- Nº. 10. A filament and anthera, of the natural fize.
- N°. 11 and 12. The antheræ, at the time of their fhedding the pollen, or fecundating duft, burfting laterally.

## Nº. XLII.

Observations on the construction of Hospitals, by Mr. Le Rox. Member of the Royal Academy of Sciences— (Extracted from an Essay on the subject, which, with several elegant plans, was transmitted by the author to the Society, but could not be inserted entire, as it contained many remarks of a local nature, respecting Paris —only.

THE conftruction of Hospitals is in general objectionable, either because many of the wards do not admit of perfect ventilation, or because the air pasfes from one patient over another, by which means contagious diseases are often spread.

To avoid these inconveniences, a large Hospital should confist of distinct and seperate buildings, each forming one ward, erected upon arches or columns, at a considerable height height from the ground, and ranged at a distance from each other, like the tents of an encampment.

The cieling or roof of each ward fhould be formed into a number of fpherical arches according to its fize, the crown of each arch being in the middle of the breadth of the ward, and opening into a funnel like a common chimney, which fhould be fupplied with a vane, (refembling that we call a cow) fo that it may always open to leeward.

In each floor, midway as to breadth, should be a row of holes at fuitable distances from each other, to admit air from below, so constructed that the quantity of it may be regulated at pleasure,

In confequence of this ftructure there must be a constant change of air, for that which is in the lower part of the ward, being warmed by the patients and nurses, and the neceffary fires, will ascend, and in confequence of the spherical construction of the roof, will be directed to the openings in it, and flow through them, while the holes in the floor will afford a constant supply of fresh air, which will move rapidly as it enters the room fo low.

A number of arches with openings is preferable to a fingle arch in the center, because the air in passing from the extremities of the room to the center flows, from one patient over another—and a plane or flat cieling, even with apertures, is improper, because the upper air at a diftance from the apertures cannot move to them.

The rooms may be warmed by placing grates or floves over these holes in the floor, and no bad effect can be produced by the fire as the air and vapours will ascend from it and go off by the holes in the cieling—If it be neceffary to quicken the circulation of air, either on account of the flug islands of the atmosphere, or of the contagious nature of any diseases in the ward, small fires may be fixed in grates or floves near the openings in the cieling, to increafe the motion of the air.

To prevent the fpreading of contagion, as well as to keep the fick from beholding the fufferings of each other, a fcreen of fuitable height fhould be placed between each bed.

For contagious diforders and furgical cafes, there fhould be a number of wards, at a diffance from the Hofpital, and to leeward of it with refpect to the prevailing winds.

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